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IN THE

Supreme Court of the United States

OCTOBER TERM, 1961.

No. 316

ALUMINUM COMPANY OF AMERICA, ELECTRO-CIRCUITS, INC., AND CURTISS-WRIGHT CORPORATION,

Petitioners,

vs.

SPERRY PRODUCTS, INC., FLOYD A. FIRESTONE AND UNITED AIRCRAFT CORPORATION,

Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT.

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INDEX.

	PAGE
Opinions Below	2
Jurisdiction	2
Questions Presented	3
First Question	3
Second Question	4
Statutes Invoked	4
Statement of the Case	5
Introduction	5
Pleadings and Parties in General	5
Subject Matter of the Patents Involved	7
Formation of ElectroCircuits and Relationship with Sperry	9
Argument	12
First Question	12
(1) Aircraft Manufacturers Needed and Desired Immersion Equipment Because It Is Uniquely Suitable for Detecting Flaws in Forgings	15
(2) Sperry Had a 100% Monopoly in the Field of Pulse-Echo Inspection But Was Unable or Unwilling to Make Immersion Equipment	15
(3) ElectroCircuits Being Ready and Able to Market Immersion Equipment Assumed Without Investigation That Sperry's Charges Were Justified and Went to Sperry to Request a License	16
(4) Sperry Refused to License on a Royalty Basis and Used the Agreement to Hold ElectroCircuits in a Subservient Position to Forestall Challenge of Its Patents and Its Monopoly	16

Second Question 18

The Claims of the No. 1 Patent Must Be Construed Either as Invalid Because Directed to a Desired Result, or as So Limited as Not to Be Infringed..... 24

The No. 3 Patent Is Either Invalid or Not Infringed; Immersion Testing Follows the Prior Art and Does Not Involve Use of the "Interposed Member" Which Formed the Basis of the Finding of Invention of the Courts Below 26

Reasons for Granting the Writ..... 30

(1) The Public Safety Is Vitally Affected by the Outcome of this Case..... 30

(2) The Court of Appeals Has Decided Federal Questions in Direct Conflict With Decisions of This Court, Greatly Extending the Scope of Monopoly Obtainable Through Patents, and the Scope of Permissible Activities of Patent Owners in Limiting Competition 31

Conclusion 32

Appendix 33

Defendants-Appellants' Petition for Rehearing.. 33

Order Denying Defendants-Appellants' Petition for Rehearing 41

Statutes:

15 U. S. C. Section 2..... 42
15 U. S. C. Section 15..... 42
15 U. S. C. Section 26..... 42
35 U. S. C. Section 101..... 43
35 U. S. C. Section 102 (a) and (b)..... 43
35 U. S. C. Section 103..... 43
35 U. S. C. Section 112..... 44
35 U. S. C. Section 154..... 44

Table of Authorities.

Cases.

Comptograph Co. v. Mechanical Accountant Co., 145 Fed. 331, 338 (C. A. 1, 1906) 23

Corning v. Burden, 20 U. S. 503, 506 (1853) 19

Corning Glass Works v. Federal Glass Co., 239 F. 2d 674, 675 (C. A. 6, 1956) 23, 29

Derby v. Thompson, 146 U. S. 476, 482 (1892) .. 22, 23, 26, 29

Duff v. Sterling Pump Co., 107 U. S. 636, 639 (1882) 22, 23, 26, 29

Ethyl Gasoline Corp. v. U. S., 309 U. S. 436 (1940) .. 13, 17

General Electric Company v. Wabash, 304 U. S. 364, 371 (1938) 19, 20, 25

General Motors Corp. v. Estate Stove Co., 201 F. 2d 645 (C. A. 6, 1953); On Rehearing at 203 F. 2d 912 .. 21

Halliburton Oil Well Cementing Co. v. Walker, 329 U. S. 1, 9 (1946) 19, 20

Holland Furniture Co. v. Perkins Glue Co., 277 U. S. 245, 256-8 (1928) 19

Interstate Circuit, Inc. v. U. S., 306 U. S. 208 (1939) .. 13, 17

Knapp v. Morss, 150 U. S. 221, 229 (1893) 22, 23, 26, 29

Kobe, Inc. v. Dempsey Pump Co., 198 F. 2d 416, 425 (C. A. 10, 1952); cert. den. 344 U. S. 837 18

In re Krodel, 223 F. 2d 285, 288, 289 (C. C. P. A., 1955) 21

In re Mason, 244 F. 2d 733 (C. C. P. A., 1957) 21

Mercoid Corp. v. Mid-Continent Co., 320 U. S. 661 (1944) 14, 17

Miller v. Eagle Manufacturing Co., 151 U. S. 186, 208 (1894) 22, 23, 26, 29

Pennington Engineering Co. v. Spicer Mfg. Corp., 165 F. 2d 59, 64 (C. A. 6, 1947) 23, 29

In re Piazze, 230 F. 2d 426 (C. C. P. A., 1956) 21

Transwrap Corp. v. Stokes Co., 329 U. S. 637, 643 (1947) 14, 17

United Carbon Co. v. Binney Co., 317 U. S. 228, 234 (1942) 19, 20

U. S. v. Masonite Corp., 316 U. S. 265, 277 (1942) 14, 17

United States v. Paramount Pictures, Inc., 334 U. S. 131 (1948) 14, 17

Warren Co. v. Nashua Gummed & Coated Paper Co., 205 F. 2d 602 (C. A. 1, 1953) 21

Westinghouse v. Boyden Power Brake Co., 170 U. S. 537, 555 (1898) 19

Statutes.

15 U. S. C. Section 2 42
15 U. S. C. Section 15 42
15 U. S. C. Section 26 42
35 U. S. C. Section 101 43
35 U. S. C. Section 102 (a) and (b) 43
35 U. S. C. Section 103 43
35 U. S. C. Section 112 44
35 U. S. C. Section 154 44

Other Materials.

"Commentary on the New Patent Act," by P. J. Federico, Title 35 U. S. C. A. Patents, Sections 1 to 110, p. 1 20

U. S. Code Congressional and Administrative News, 82nd Congress, 2nd Session, 1952, Legislative History Commentaries, 2394, 2412 20

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SPERRY PRODUCTS, INC., FLOYD A. FIRESTONE AND UNITED AIRCRAFT CORPORATION,

Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT.

To the Honorable Chief Justice and Associate Justices of the Supreme Court of the United States:

Aluminum Company of America, ElectroCircuits, Inc. and Curtiss-Wright Corporation, defendants-appellants in the proceedings below, hereby respectfully petition this Court for a Writ of Certiorari directed to the United States Court of Appeals for the Sixth Circuit to review the Judgment of that Court entered November 22, 1960 (Petitions for Rehearing denied June 1, 1961) insofar as it affirmed

that part of the Judgment of the District Court entered February 10, 1959 holding valid and infringed claims 1, 2, 3, 4, 10 and 11 of Firestone Patent No. 2,280,226 (847a—Referred to as the "No. 1 patent") and claims 1, 2 and 3 of Firestone Patent No. 2,467,301 (865a—Referred to as the "No. 3 patent") and insofar as that Judgment dismissed patent misuse defenses and the counterclaim of petitioner, ElectroCircuits, Inc., for violation of the anti-trust laws.

OPINIONS BELOW.

The Memorandum Opinion of the District Court is reported at 171 F. Supp. 901 and is printed at 771a.

The Opinion of the Court of Appeals is reported at 285 F. 2d 911 and said Opinion, together with the Judgment of the Court of Appeals, is printed in the Appendix (1a to 32a) to a Petition of Floyd A. Firestone filed in this Court under No. 184 and therefore is not appended hereto.

Petitioners' Petition for Rehearing as to Firestone Patent No. 2,467,301 (865a) is printed in the Appendix hereto at page 33.

The Order of the Court of Appeals denying Petitioners' said Petition for Rehearing is printed in the Appendix hereto at page 41.

JURISDICTION.

Jurisdiction of this Court is invoked under 28 U. S. C. Section 1254(1). This petition is filed within the time provided by 28 U. S. C. Section 2101(c), the Petition for Rehearing herein having been denied on June 1, 1961.

QUESTIONS PRESENTED.

First Question.

Is trade unreasonably restrained by an agreement through which a patent holder requires that purchasers of certain immersion[1] equipment from another also have or purchase expensive and 80% unusable contact[2] equipment from the patent holder, where :

(1) Aircraft manufacturers in the interest of public safety need and desire immersion equipment because it is uniquely suitable for detecting internal flaws in aircraft forgings;

(2) The patent holder has a 100% monopoly in the field of pulse-echo inspection of metal articles such as aircraft forgings and charges that its patents are infringed by such immersion equipment, but is unable or unwilling to make immersion equipment and makes only contact equipment which is not suitable for testing aircraft forgings;

(3) A new company, being ready and able to market immersion equipment, assumes without investigation that the infringement charges are justified and goes to the patent holder to request a license; and

(4) The patent holder while refusing to license on a

1. In *Immersion* testing equipment, the transducer crystal and the part to be tested (the workpiece) are immersed in a tank of water and are separated from each other so that the ultrasonic waves travel through the water and the crystal and workpiece may be freely moved during the inspection operation. This permits the inspection of irregularly shaped objects such as aircraft forgings.

2. In *Contact* testing equipment, the transducer crystal and workpiece are held in intimate contact so that the ultrasonic waves travel directly from the crystal into the workpiece. This equipment is unusable for the testing of irregularly shaped aircraft forgings.

royalty basis uses the agreement to hold the new company in a subservient position and to forestall challenge of its patents?

Second Question.

Has Section 112 of the 1952 Patent Act (35 U. S. C. 112):

(a) so "modified or rendered obsolete"* the prior existing decisions of this Court holding functional patent claims invalid, that claims relying solely upon a functional statement for their novelty are now valid, and

(b) modified the rule previously applied by this Court that infringement can only exist by the adoption of a novel feature disclosed in the patent and not by the adoption of techniques previously known to the prior art, or

(c) is the 1952 Patent Act a codification of prior existing law?

STATUTES INVOKED.

The pertinent statutory provisions here invoked are printed in the Appendix hereto, *infra*. They comprise Sections 2, 15 and 26 of Title 15 U. S. C. and Sections 101, 102(a) and (b), 103, 112 and 154 of Title 35 U. S. C.

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* The decision of the Court of Appeals quotes with approval a commentary on the Act, written by a Patent Office Examiner, that "decisions such as that in *Halliburton Oil Well Cementing Co.* v. *Walker*, 67 S. Ct. 6, 329 U. S. 1, 91 L. Ed. 3 (1946), are modified or rendered obsolete, but the exact limits of the enlargement remain to be determined." This decision is printed at page 6a of the appendix to the Petition of Firestone heretofore filed under Docket No. 184.

STATEMENT OF THE CASE.

INTRODUCTION.

This Petition seeks issuance of the Writ of Certiorari on two general grounds:

(1) That the public safety is vitally affected by the outcome of this case which involves certain immersion ultrasonic testing equipment developed by defendant, Electro-Circuits, Inc., and uniquely suitable for detecting hidden cracks or flaws in aircraft forgings; and

(2) That the Court of Appeals has decided Federal questions in direct conflict with decisions of this Court, greatly extending the scope of monopoly obtainable through patents, and the scope of permissible activity of patent owners in limiting competition.

PLEADINGS AND PARTIES IN GENERAL.

This suit was commenced on September 20, 1954, as an action for infringement of patents of plaintiff, Floyd A. Firestone, Nos. 2,280,226 (PX 1, 847a), 2,398,701 (PX 2, 855a), 2,467,301 (PX 3, 865a) and 2,592,134 (PX 4, 869a), which are referred to herein and in the opinions of the Courts below respectively as Patents Nos. 1, 2, 3 and 4.

The plaintiffs are Floyd A. Firestone, patentee of all four patents in suit and the owner of the legal title to Patent No. 1; Sperry Products, Inc., a New York corporation, the exclusive licensee under Patents Nos. 1 and 2, and the owner of Patents Nos. 3 and 4; and United Aircraft Corporation, a Delaware corporation, the owner of Patent No. 2 and present here as an involuntary party-plaintiff.

The defendants are Aluminum Company of America (hereinafter called Alcoa), a Pennsylvania corporation, with a place of business at Cleveland, Ohio, where it has used the alleged infringing apparatus known as an "Immerscope"; ElectroCircuits, Inc., maker and supplier to Alcoa of such apparatus; and Curtiss-Wright Corporation, a Delaware corporation, which was named as intervening defendant on its own motion, by an Order dated February 10, 1959 (2a). Said Curtiss-Wright Corporation had, subsequent to October 17, 1955, manufactured Immerscopes under license from ElectroCircuits and, due to the inability of ElectroCircuits to do so, has financed the defense to this litigation subsequent to that date (773a).

To overcome the deficiencies of the originally filed complaint, an Amended and Supplemental Complaint was filed on July 18, 1957 (3a to 16a). The Answer of defendants Aluminum Company of America and ElectroCircuits, Inc. (51a to 57a) denies infringement and asserts that the patents are invalid and unenforceable on several grounds, including misuse. A counterclaim filed by ElectroCircuits (58a to 67a) asserts violation of the antitrust laws by plaintiff to the damage of ElectroCircuits and asks for treble damages.

The Memorandum Opinion of the District Court (771a to 842a) held all asserted claims of all four patents in suit valid and infringed, with the exception of claim 7 of Patent No. 2 which was held invalid, and found the misuse defense and the counterclaim to be without merit.

The Opinion of the Court of Appeals (285 F. 2d 911) affirms the District Court with respect to its findings of validity and infringement of the asserted claims of Patents Nos. 1, 3 and 4, affirms the District Court in its dismissal of the misuse defense and counterclaim, and reverses the District Court with respect to its finding of validity of certain asserted claims of Patent No. 2.

Defendants-appellants filed a Petition for Rehearing and Reconsideration with respect to the findings of validity and infringement of the No. 3 Patent. This was denied by an Order entered June 1, 1961, printed in the Appendix hereto at page 41.

This Petition involves only the No. 1 and No. 3 Patents in suit, the misuse defense and the counterclaim under the antitrust laws. It does not involve either Patent No. 2 or Patent No. 4.

SUBJECT MATTER OF THE PATENTS INVOLVED.

The patents involved all relate to applications of a principle that was old and well known prior to any invention of the patentee Firestone. That principle consists of the electronic timing of ultrasonic waves (sound waves of too high a frequency to be audible) created by an electrically vibrated crystal, from the point of their creation to a point of interruption where they are "echoed" back to the crystal. This principle was widely utilized in the prior art for underwater depth charting and for the location and determination of the distance to submerged objects such as submarines. The same principle has long been utilized with audible sound as in navigation, where the time of return of echoes from the blasts of a steamboat whistle furnished accurate information as to the distance of the ship from a precipitous shore line.

It was also well known prior to Firestone that ultrasonic waves are capable of penetrating solid objects as well as water and that echoes thereof are returned to the source whenever the waves encounter a discontinuity, as, for example, upon entering or leaving a solid object or passing through a flaw or discontinuity therein.

Respondents' embodiment of the patent inventions is called a "Reflectoscope". In the structure of the No. 1

Patent, the transducer crystal from which the ultrasonic waves emanate is in *direct contact* with the part to be tested. In the No. 3 Patent, a spacer of metal or a container of liquid *contacts* the crystal at one end and the part to be tested at the other end. With these *contact* instruments, it is not practicable to inspect irregularly shaped articles such as aircraft forgings.

Petitioners' "Immerscope" derives its name from the immersion of the part to be tested in a tank of water.* The sender-receiver device, the crystal, is also submerged, usually at a position above the part. The crystal periodically sends a burst or pulse of sound waves down through the water toward the part, and "listens" for the return of echoes from the upper surface of the part and from flaws or discontinuities in the interior of the part. The operation is exactly the same as in prior art ultrasonic systems used in investigating layers of mud or clay at the bottom of the ocean.

The principal advantage of the immersion technique was known prior to Firestone.** The crystal can be freely moved along under the water to scan the part under test, and *because there is no contact between the crystal and the part*, the part can be one having a rough surface and an irregular shape, such as an aircraft forging. At the same time, the water serves as a medium which provides uniform acoustic coupling between the crystal and the part. Such results cannot be obtained with the contact method of the Firestone patents and respondents' Reflectoscope.

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* Attention is invited to the stipulated description of the Immerscope (22a-25a).

** Sokolov 1935 publication (1214a, 1215a, 1220a); Bergmann 1938 publication (1004a); Gotz 1943 publication (1229a, 1231a-1233a).

FORMATION OF ELECTROCIRCUITS AND RELATIONSHIP WITH SPERRY.

Prior to formation of Petitioner, ElectroCircuits, Inc., William C. Hitt of Douglas Aircraft Company (441a) had tested the Reflectoscope of Respondent, Sperry Products, Inc., and found that it was impossible to use it on the majority of die forgings used in aircraft, because it used the contact method and was limited to testing of materials that were flat and smooth (445a).

In 1949 or early 1950, Hitt tested immersion equipment of Donald Erdman, later an organizer of ElectroCircuits, Inc. Hitt found the immersion method both suitable and necessary for the inspection of die forgings and irregularly-shaped parts (446a, 456a). Thereafter, Hitt as a member of the Society for Non-Destructive Testing called a meeting in Detroit which was attended by representatives of various aircraft companies and airframe manufacturers and also by a representative of Sperry (447a-448a, 600a-602a).

The need for immersion equipment was discussed and the Sperry representative indicated that Sperry would improve its equipment (449a, 600a-602a). However, Sperry furnished no satisfactory immersion equipment until 1955 (498a-499a, 604a, 627a, 731a) and there is uncontroverted evidence that even that equipment, the UW Reflectoscope, is not satisfactory for production line testing (Gauthier, 499a-500a; Prosek, 513a).

ElectroCircuits was organized in California in 1951, and wanted to market immersion equipment to meet the demand of the aircraft companies, but found that Sperry regarded its patents as infringed. Sperry then had a 100% monopoly in the field of pulse-echo inspection of metals. ElectroCircuits did not proceed to make immersion equipment and did not ignore the possible rights of Sperry. Instead,

Richards of ElectroCircuits went to New York, requested a license and made other proposals to Sperry. All were refused. The best deal Richards could get was an agreement that Sperry would forebear instituting suit for infringement provided that ElectroCircuits sold a Wide Band Converter for use only with the Sperry Reflectoscope. The Wide Band Converter was designed to be plugged into the Reflectoscope and used only the oscilloscope portion thereof. The Reflectoscope was then 80% useless (Richards, 651a-655a; District Court Opinion, 773a, 826a).

Under the agreement ElectroCircuits sold only eight Wide Band Converters to owners of Reflectoscopes and was only able to make one sale to a customer who agreed to its use with a Reflectoscope to be purchased from Sperry (826a).

In March 1953, Sperry charged that the tying agreement was breached by the sale by ElectroCircuits of a B Scan display unit in conjunction with the Wide Band Converter (827a). On May 6, 1953, Richards went to New York and conferred with Sperry. Farwell, president of Sperry, commented that "they were not interested in considering a license because the field was not large enough for two companies" (Richards, 660a).* Richards proposed that ElectroCircuits convert to a non-infringing FM system, and Sperry agreed (661a). However, on May 22, 1953, Sperry served notice that the FM apparatus "might well infringe our patent" (DX VVV, 1274a).

ElectroCircuits was then advised of the opinion of one firm of lawyers that the Sperry patents were invalid. After obtaining the same opinion from another firm, ElectroCircuits started making a complete immersion testing instrument, the Immerscope (827a).

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* Farwell on another occasion made a similar comment to Fink of Alcoa (606a).

In the meantime, Petitioner, Alcoa, had been trying to purchase immersion equipment and had placed an order with Sperry in 1953 (604a), but the equipment was not delivered until 1955 (731a). An Immerscope, however, was delivered by ElectroCircuits in the summer of 1954, and this suit was brought on September 20, 1954.

As a result of the financial drain incident to this suit, ElectroCircuits was forced into an agreement with Curtiss-Wright Corporation which agreed to finance the defense of the suit, in return for certain sales and manufacturing rights (773a).

ARGUMENT.

FIRST QUESTION.

Is trade unreasonably restrained by an agreement through which a patent holder requires that purchasers of certain immersion equipment from another also have or purchase expensive and 80% unusable contact equipment from the patent holder, where:

(1) Aircraft manufacturers in the interest of public safety need and desire immersion equipment because it is uniquely suitable for detecting internal flaws in aircraft forgings;

(2) The patent holder has a 100% monopoly in the field of pulse-echo inspection of metal articles such as aircraft forgings and charges that its patents are infringed by such immersion equipment, but is unable or unwilling to make immersion equipment and makes only contact equipment which is not suitable for testing aircraft forgings;

(3) A new company, being ready and able to market immersion equipment, assumes without investigation that the infringement charges are justified and goes to the patent holder to request a license; and

(4) That patent holder while refusing to license on a royalty basis uses the agreement to hold the new company in a subservient position and to forestall challenge of its patents?

The opinion of the Court of Appeals is in direct conflict with the policy of this Court in failing to refer to the circumstances surrounding the agreement in question, and the unreasonableness thereof as it applied in practice.

This Court has consistently followed the general principle that although the owner of a patent or copyright may be under no duty to grant any rights under his patent or copyright, he must if he does grant such rights, grant them in such a manner and under such circumstances as not to constitute an unreasonable restraint of trade. In all such cases, this Court has examined all of the circumstances and practical effects of the agreement or practice being considered.

For example, in *Interstate Circuit, Inc.* v. *U. S.*, 306 U. S. 208 (1939), the copyright owner of motion picture films entered into an agreement with theater owners for first-run exhibitions of "feature" pictures. The copyright owner agreed that in licensing other theaters for subsequent runs of the same pictures, such other theaters were to observe a minimum price of admission and abstain from presenting the picture so licensed with any other feature picture. After examining in considerable detail the surrounding circumstances, this Court held the agreement to be illegal because the restrictions imposed on the subsequent-run exhibitors constituted an unreasonable restraint of trade.

In *Ethyl Gasoline Corp.* v. *U. S.*, 309 U. S. 436 (1940), a license system involving a patent owner, gasoline refiners and jobbers was held illegal, where the patent owner did not merely exploit its patents by manufacturing the fluid covered by them, but granted rights to refiners and jobbers under such terms as to constitute an unreasonable restraint on trade. This Court again carefully examined all of the surrounding circumstances. For example, it gave consideration to a question of whether the license system was justified by provisions which might serve to protect the health of the public in connection with the distribution of the gasoline containing the fluid, which was poisonous in nature.

In *U. S.* v. *Masonite Corp.*, 316 U. S. 265 (1942), an owner of a patent on a product through agreements with competitors undertook to constitute the competitors as its agents for the sale of the patented product through their respective sales organizations at prices fixed by the patent owner. After considering the circumstances, this Court held the agreements to be illegal. At 316 U. S. 277, this Court stated the rule that:

> "But it will not do to say that, since the patentee has the power to refuse a license, he has the lesser power to license on his own conditions. There are strict limitations on the power of the patentee to attach conditions to the use of the patented article."

This principle was again stated in *Transwrap Corp.* v. *Stokes Co.*, 329 U. S. 637 (1947), at page 643, as follows:

> "The fact that a patentee has the power to refuse a license does not mean that he has the power to grant a license on such conditions as he may choose."

In *Mercoid Corp.* v. *Mid-Continent Co.*, 320 U. S. 661 (1944), an exclusive licensee under a combination patent granted sub-licenses only to purchasers of an unpatented element of the combination, and paid royalties to the patent owner based upon sales of the unpatented element. This Court, after careful consideration of all surrounding circumstances, held that the patent was unenforceable.

In *United States* v. *Paramount Pictures, Inc.*, 334 U. S. 131 (1948), this Court held that a distributor of copyrighted films could not license or offer to license one picture or group of pictures on condition that the licensee also license another picture or group of pictures released by the distributor during a given period, since it would prevent competitors from bidding on single-feature pictures on their individual merits.

In each of the above cases, the owner of the patent or

copyright might have refused to grant any license, and the contracts or agreements in question did serve to promote some trade or commerce which might not have existed had the owner of the patent or copyright refused to grant any license. Nevertheless, the Court held that under the circumstances of the respective cases (except *Transwrap*), the agreements constituted an unreasonable restraint of trade.

We now invite consideration of the circumstances of this case:

(1) Aircraft Manufacturers Needed and Desired Immersion Equipment Because It Is Uniquely Suitable for Detecting Flaws in Forgings.

That immersion equipment is uniquely suitable for detecting flaws in aircraft forgings is shown by the testimony of Hitt (441a, 445a, 446a, 456a), confirmed by the District Court (805a). The demand by aircraft companies is shown by the testimony of Hitt (447a-449a, 461a, 465a-466a), the testimony of Gauthier (495a-496a) and the subsequent purchase of immersion equipment by aircraft companies (DX-XXX, 1278a).

(2) Sperry Had a 100% Monopoly in the Field of Pulse-Echo Inspection But Was Unable or Unwilling to Make Immersion Equipment.

Sperry's sales manager and president conceded that the only apparatus in competition with the Sperry contact instrument, the Reflectoscope, is the Immerscope (647a, 718a) which was not made at the time of the restrictive agreement. However, Sperry was unable or unwilling to market immersion equipment. It accepted an order from Alcoa in 1953, but did not deliver until 1955 (731a). And that equipment, the UW Reflectoscope, is not suitable for production line testing (499a, 500a, 513a).

(3) ElectroCircuits Being Ready and Able to Market Immersion Equipment Assumed Without Investigation That Sperry's Charges Were Justified and Went to Sperry to Request a License.

When ElectroCircuits was ready to market immersion equipment in May 1952, Richards, its president, went to New York to request a license (Richards, 651a-655a; District Court Opinion, 826a). It was not until 1953 that Richards obtained opinions that the patents were invalid (661a, 662a, 664a).

(4) Sperry Refused to License on a Royalty Basis and Used the Agreement to Hold ElectroCircuits in a Subservient Position to Forestall Challenge of Its Patents and Its Monopoly.

Sperry's purpose in refusing to license on a royalty basis and in entering into the agreement is shown by the circumstances. In entering into the agreement allowing ElectroCircuits to sell immersion equipment on a limited basis, Sperry recognized (1) that it was unwilling or unable to market such equipment itself; and (2) that there was a demand for such equipment and a threat of competition from ElectroCircuits. If Sperry wanted to supply the equipment, or if there was no threat of competition, Sperry would not have entered into the agreement, but would merely have refused the license outright.

It is shown by the circumstances that Sperry's purpose was to hold ElectroCircuits in a position where it could not compete effectively and where it could not challenge Sperry's patents or its monopoly.

As found by the District Court (773a, 826a), the restrictive agreement requires that a purchaser of the Wide Band Converter have or purchase a Sperry Reflectoscope which

is then 80% useless with only the oscilloscope portion being used. If the purchaser already had a Reflectoscope, it was tied up in its use with the Wide Band Converter, and could not be used for other purposes. If he did not have one, he was forced to purchase one. The Reflectoscope cost about $5700, making a total cost to a purchaser of $11,300. A complete instrument, the Immerscope, was later put on the market for $6000 (682a). Thus, the total cost to a purchaser was almost doubled. A Sperry letter admits that "the proposition we have given you suggests that you buy an automobile to get the engine" (DX PPP1, 1267a).

We submit that the restrictive agreement clearly constituted a violation of Title 15 U. S. C., Section 2 (printed in the Appendix hereto) and a misuse of the patents in suit. It imposed harsh and arbitrary terms on purchasers, and it placed ElectroCircuits in a position where it could not effectively compete with Sperry to preserve Sperry's monopoly of the field. And Sperry entered into the agreement with full knowledge of the need for immersion equipment for purposes of public safety, and of its own inability or unwillingness to supply such equipment. The fact that a patent holder has the right to refuse a license does not mean that he has the power to grant a license under such conditions as he may choose. *Transwrap Corp.* v. *Stokes Co.*, 329 U. S. 637, 643 (1947); *U. S.* v. *Masonite Corp.*, 316 U. S. 265, 277 (1942). The conditions imposed must not constitute an unreasonable restraint on trade as determined by an examination of surrounding circumstances and the practical effect of the conditions, following the policy established by this Court. *Interstate Circuit Inc.* v. *U. S.*, 306 U. S. 208 (1939); *Ethyl Gasoline Corp.* v. *U. S.*, 309 U. S. 436 (1940); *U. S.* v. *Masonite Corp.*, 316 U. S. 265 (1942); *Mercoid Corp.* v. *Mid-Continent Co.*, 320 U. S. 661 (1944); *U. S.* v. *Paramount Pictures, Inc.*, 334 U. S. 131 (1948).

Under the restrictive agreement, the price of complete immersion equipment to purchasers was almost doubled (682a). The damage to ElectroCircuits is clear since it obviously could have made more sales and or greater profits per sale with a license on a royalty basis, if at all reasonable. This damage was sustained when ElectroCircuits was a newly-formed company and in a critical stage of its development.

ElectroCircuits was additionally and severely damaged by the subsequent lawsuit which made it difficult to sell Immerscopes (673a) and forced ElectroCircuits into the contract with Curtiss-Wright (773a). This is not an ordinary case of a patent holder merely refusing to license an infringer and then bringing suit against the infringer. The circumstances show that Sperry entered into the agreement for the unlawful purpose of placing ElectroCircuits in a subservient position to forestall challenge of its patents and its monopolistic position. The suit was brought in furtherance of that purpose, to eliminate ElectroCircuits as a competitor. The right to damages arising from the filing of a suit in furtherance of a violation of the antitrust laws is recognized at page 248 of the Report of the Attorney General's Committee to Study the Antitrust Laws (1955), and by the Court of Appeals for the Tenth Circuit in *Kobe, Inc.* v. *Dempsey Pump Co.*, 198 F. 2d 416, 425 (C. A. 10, 1952); cert. den. 344 U. S. 837.

We submit that the patents are unenforceable because of misuse.

SECOND QUESTION.

Has Section 112 of the 1952 Patent Act (35 U. S. C. 112):

> (a) so "modified or rendered obsolete" the prior existing decisions of this Court holding functional patent claims invalid, that claims relying solely upon

a functional statement for their novelty are now valid, and

(b) modified the rule previously applied by this Court that infringement can only exist by the adoption of a novel feature disclosed in the patent and not by the adoption of techniques previously known to the prior art, or

(c) is the 1952 Patent Act a codification of prior existing law?

The decision of the Court of Appeals is in direct conflict with two basic principles of patent law as established by decisions of this Court, and it greatly enlarges the scope of monopoly obtainable through claims to a function or a desired result. The decision is particularly unjust and inequitable in that if it were upheld, Petitioners would be enjoined from making, selling or using immersion equipment until April 12, 1966,[1] the expiration date of the No. 3 Patent, even though immersion testing is taught in the prior art, is not disclosed in either Patent No. 1 or Patent No. 3, was first introduced commercially by Petitioner, ElectroCircuits, and even the equipment belatedly introduced by Respondent, Sperry, is not suitable for production line testing.

The decision directly conflicts with two basic principles of patent law, as follows:

(1) A claim to a function or a desired result is invalid. *Corning* v. *Burden*, 20 U. S. 503, 506 (1853); *Westinghouse* v. *Boyden Power Brake Co.*, 170 U. S. 537, 555 (1898); *Holland Furniture Co.* v. *Perkins Glue Co.*, 277 U. S. 245, 256-8 (1928); *General Electric Company* v. *Wabash*, 304 U. S. 364, 371 (1938); *United Carbon Co.* v. *Binney Co.*, 317 U. S. 228, 234 (1942); *Halliburton Oil Well Cementing Co.* v. *Walker*, 329 U. S. 1, 9 (1946).

1. Thus extending the monopoly of the No. 1 Patent, which expired in 1959, for seven years.

The decision of the Court of Appeals holds that this rule is abolished by that portion of Title 35, Section 112, which expressly permits "means" clauses in combination claims. It quotes with approval the commentary on the Act that decisions of this Court such as that in *Halliburton Oil Well Cementing Co.* v. *Walker*, 329 U. S. 1 (1946), are "modified or rendered obsolete".

The Commentary on the Act which is relied upon by the Court of Appeals was written by a Patent Office Examiner (Title 35 U. S. C. A. Patents, Sections 1 to 110, p. 1). The official reports of the Senate and House Committees, however, discuss in considerable detail the Sections of the new Act in relation to previous statutes and court decisions, but contain no suggestion that Section 112 changes the existing law. The revision notes appended to the reports merely state that "A new paragraph relating to functional claims is added." (U. S. Code Congressional and Administrative News, 82nd Congress, 2nd Session 1952, Legislative History Commentaries, 2394, 2412). There is no evidence of any specific legislative intent to abolish the law as established by the decisions of this Court.

We submit that there is nothing in Section 112 of the Patent Act which purports to abolish or change the rule that a claim to a desired result is invalid. Section 112 may permit greater liberality, so far as the *form* of *combination* claims is concerned. However, Section 112 retains the requirement of previous statutes that "the specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention". It does not affect the substantive rule that a claim to a function or result is invalid, as held by this Court in *General Electric Co.* v. *Wabash*, 304 U. S. 364 (1938); *United Carbon Co. v. Binney Co.*, 317 U. S. 228 (1942), and a long line of decisions previous thereto.

In this regard, the decision of the Court of Appeals is also in direct conflict with its own previous decisions. In *General Motors Corp.* v. *Estate Stove Co.*, 201 F. 2d 645 (C. A. 6, 1953), it held that claims directed to a function or result were invalid. In a rehearing of the case, reported at 203 F. 2d 912, it held that the claims were not saved by the portion of Section 112 of the new Act, and that the claims were invalid under the portion retained from previous statutes, as to "particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention".

The decision of the Court of Appeals also conflicts with decisions of the Court of Customs and Patent Appeals rendered subsequent to January 1, 1953, the effective date of U. S. C. 35, Section 112. In *In re Krodel*, 223 F. 2d 285, 288, 289 (1955); *In re Piazze*, 230 F. 2d 426 (1956); *In re Mason*, 244 F. 2d 733 (1957), that Court held that claims were invalid which expressed what is desired rather than what is actually done or what is necessary for the operation of the invention.

The decision of the Court of Appeals also conflicts with a statement of the Court of Appeals for the First Circuit in *Warren Co.* v. *Nashua Gummed & Coated Paper Co.*, 205 F. 2d 602 (C. A. 1, 1953). In that case, the Court held the claims in question to be valid, but stated that (p. 605):

> "The functional claims doctrine stems from the statutory requirement of long standing that an applicant for a patent must particularly point out and distinctly claim what he regards as his invention. See R. S. 4888, 35 U. S. C. 33, and now Title 35 U. S. C. 112. This requirement, the courts have repeatedly held, prevents a patentee from stating his invention in terms of the result he achieves instead of in terms of his method of achievement. But it does not forbid all statements of function, result or means in patent claims. What it forbids is the description of the 'crucial element' of a

> claim in terms of accomplishment rather than in terms of physical characteristics; it forbids a statement of function or result at the precise point of novelty. See *Halliburton Oil Well Cementing Co.* v. *Walker, supra.* The obvious purpose of the doctrine is to prevent a patentee from obtaining a monopoly over a wider area than he has pioneered."

Thus the decision of the Court of Appeals not only conflicts with decisions of this Court but also conflicts with its own previous decisions, the decision of the First Circuit Court of Appeals, and the decisions of the Court of Customs and Patent Appeals. We submit that it remains the law that a claim is invalid where directed to a function or a desired result.

(2) The decision of the Court of Appeals is also in direct conflict with the rule that *a device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art. Duff* v. *Sterling Pump Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 150 U. S. 221, 229 (1893); *Miller* v. *Eagle Manufacturing Co.*, 151 U. S. 186, 208 (1894).

The only possible basis for the findings of validity of the No. 1 and No. 3 Patents is in the provision of certain allegedly novel features (the direct contact method of Patent No. 1, and the "interposed member" of Patent No. 3 in contact with both crystal and part). Those features are not used in the Immerscope which uses the prior art immersion technique.

In finding infringement, however, the decision of the Court of Appeals makes no reference to these facts, and appears to base its conclusion on the fact that the patents and the Immerscope are directed to attaining the same general result, the testing of metal parts by the pulse-echo method. It appears to rely on the following quotation from

the decision of the Court of Appeals for the First Circuit in *Comptograph Co.* v. *Mechanical Accountant Co.*, 145 Fed. 331, 338 (C. A. 1, 1906):

> "If the infringing device performs the same function as the patented device, it is immaterial that it also performs some other function. It is still nonetheless an equivalent of the patented device, and an appropriation of the patented invention."

This quotation obviously does not apply in the factual situation of this case, and it is clear that the decision of the Court of Appeals is in direct conflict with the decisions of this Court in *Duff* v. *Sterling Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 105 U. S. 221, 229 (1893); and *Miller* v. *Eagle Manufacturing Co.*, 151 U. S. 186, 208 (1894).

In this respect, the decision of the Court of Appeals is also in conflict with its own previous decisions in *Pennington Engineering Co.* v. *Spicer Mfg. Corp.*, 165 F. 2d 59, 64 (C. A. 6, 1947) and *Corning Glass Works* v. *Federal Glass Co.*, 239 F. 2d 674, 675 (C. A. 6, 1956) where it set forth the rule that a device does not infringe where it follows the prior art.

We submit that the decision of the Court of Appeals is clearly in error in failing to apply these established principles. The effect of the decision is to permit a patentee to obtain an extremely broad monopoly covering any and all devices which produce a desired function or result, regardless of the structures actually used to produce such functions or results. Such a monopoly stifles the development of independent inventions and defeats the Constitutional purpose of the patent system—"To promote the Progress of Science and useful arts".

The Claims of the No. 1 Patent Must Be Construed Either as Invalid Because Directed to a Desired Result, or as So Limited as Not to Be Infringed.

Claims 1, 2, 3, 4, 10 and 11 of Patent No. 1 (847a) distinguish from the prior art *only* in a statement of *purpose* or *result* in the introductory clause thereof.

> "In a device for the interior inspection, expiration or measurement of a solid part to its maximum dimension is of the order of 10 feet or less, —." (In Claims 10 and 11 in suit, "An inch" is specified instead of "10 feet or less".)

Following that clause, each claim merely recites "means" or components which were old and well known, both alone and in combination, in the pulse-echo art. We need only go to the prior art Smith Patent No. 2,143,035 (DX K-8, 1049a) to show that such is the case. For example, compare claim 3 of the Smith Patent (1051a) with claim 4 of Patent No. 1 (852a), the most limited of the asserted claims.

This is confirmed by Firestone where he stated to the Patent Office that:

> "The only novelty expressed in claims 2 and 3 beyond the references, consists in the use of supersonic wave trains in the exploration of a part 'less thar 10 feet long'." (923a).

Claims 2 and 3 then under consideration do not differ patentably from the claims in suit.

Moreover, respondents have at no time called attention to any novel structure recited in the claims, nor is there any finding by the District Court or by the Court of Appeals that the claims of Patent No. 1 recite any novel structure. Indeed, neither decision contains any detailed consideration of the claims of any of the patents in suit.

It is clear also that Patent No. 1 was allowed by the Pat-

ent Office and was held to be valid by the Courts below because of results allegedly achieved, without regard to any structure recited in the claims which might have contributed to such results. Actually, there is evidence which shows quite clearly that the apparatus of Patent No. 1 was no improvement over the prior art.* The effect of this evidence is not considered in the opinions below, which rely entirely on notes as to tests made by Firestone several months *after* he filed his application with *improved* equipment.

We believe the findings of improved results are clearly erroneous. However, assuming *arguendo*, that Firestone did actually obtain such results, we submit that the claims are nevertheless clearly invalid.

The claims merely express what is desired rather than what is actually done or what is necessary for the operation of the invention. As stated by this Court in *General Electric Company* v. *Wabash*, 304 U. S. 364, 371 (1938):

> "But the vice of a function claim exists not only when a claim is 'wholly' functional, if that is ever true, but also when the inventor is painstaking when he recites what has already been seen, and then uses conveniently functional language at the exact point of novelty."

We submit that this rule is not "modified or rendered obsolete" as suggested in the opinion of the Court of Appeals.

Although we believe the claims to be clearly invalid as functional, we believe it noteworthy that if the claims could be construed as limited to a structure which might have accounted for the results allegedly obtained, they would clearly not be infringed. Considering the decisions below in a light most favorable to Respondents, it might be urged

* PX 58 (895a) and Firestone's testimony (548a-553a) show at best an approximate measurement of a four foot bar with apparatus as disclosed in Patent No. 1, whereas the District Court found (781a, 782a) and the 1938 Hydrographic Review (PX K-32, 1172a) shows that the prior art could measure six inches in water.

that claim 4 should be held valid because of the recitation therein of "effective contact". In attempting to justify his representations to the Patent Office, Firestone argued that the measurement of 1 16 inch, referred to in his representation to the Patent Office, was made possible through the good effective contact between the crystal and a "smooth steel plate" (753a). However, if claim 4 were construed as limited to such contact, it would clearly not be infringed by the Immerscope, which uses the prior art immersion testing method. A device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art. *Duff* v. *Sterling Pump Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 150 U. S. 221, 229 (1893); *Miller* v. *Eagle Manufacturing Co.*, 151 U. S. 186, 208 (1894).

We submit that the claims of the No. 1 Patent must be construed either as invalid because directed to a desired result, or as so limited as not to be infringed.

The No. 3 Patent Is Either Invalid or Not Infringed; Immersion Testing Follows the Prior Art and Does Not Involve Use of the "Interposed Member" Which Formed the Basis of the Finding of Invention of the Courts Below.

The decision of the Court of Appeals as to Patent No. 3 (PX 3, 865a) is clearly in error in failing to apply the two rules set forth above: (1) That a claim is invalid where directed to a desired result, and (2) That a device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art.

The decision observes that:

> "The principal distinguishing feature between Patents No. 3 and No. 1 is that a piece of metal of undisclosed size and shape, or a tank of undisclosed size containing a liquid of undisclosed content is placed between the crystal and the workpiece in Patent No. 3.

> The same combination of elements as is used in Patent No. 1 is used in this patent with the addition of the interposed member. It operates by the same fundamental principle. It produces a refinement of the same result. The question then arises as to whether or not this is invention. Would the adding of this element between the crystal and the workpiece be obvious to one ordinarily skilled in the art?"

Then, without reference to the claims and without reference to any of our prior art disclosures which were not cited by the Patent Office, the decision goes on to hold the patent valid solely because of representations made to the Patent Office as to results allegedly achieved.

After finding the patent valid on this basis, the decision states that:

> "There seems to be little question that the Immerscope infringes all of the claims of Patent No. 3. The Defendants virtually admit this in their argument on the validity of the claims of Patent No. 3 (Defendants' Brief p. 40)."

However, we made no admission of infringement. What we said was that:

> "According to the teachings of the No. 3 Firestone patent, a crystal 20 is disposed in a container 30 filled with liquid 31. The container 30 has an open bottom which is held against the flat surface of a part 10, with a gasket 32 being used to prevent leakage. The liquid 31 is described as one in which 'preferably attenuates supersonic waves'. Water, used in immersion testing, is not such a liquid (200a). Obviously, this arrangement cannot be used with irregularly shaped parts, nor is rapid scanning possible. Both are made possible only with immersion testing. Nevertheless, the claims of the No. 3 patent are so broad as to read literally on immersion testing. They merely call for 'delay means' interposed between the crystal and a 'bounded part' in a pulse-echo system. Such claims are utterly invalid."

We then went on to point out that the claims are completely anticipated by the Stocks and Rust 1935 publication (DX K-35, 1183a) which teaches the inspection of underwater layers of clay by pulse-echo equipment, exactly the same operation as in immersion testing. We further pointed out that immersion testing of *metal parts* was taught by Sokolov in a 1935 publication (1214a, 1215a, 1220a) and also in the Bergmann book (DX F, 1004a). *Sokolov also expressly suggested the use of the pulse-echo method in testing metal parts* (1202a).

These references taught immersion testing even before the No. 1 Patent, directed to the contact method. The No. 1 Patent was issued more than three years prior to the filing date of the No. 3 Patent and is also a reference thereagainst. In addition, immersion testing and its advantages over contact testing is very clearly described by Gotz in the German Journal "Akustische Zeitschrift" (DX K-42, 1229a), published in 1943, over 18 months prior to the filing date of Patent No. 3. Gotz, after describing difficulties with the contact method, such as the necessity of grinding the workpiece flat and non-uniform transmission of sound (1231a-1232a), then stated that:

> "In order to come up over these difficulties, direct connection of the sound transmitter and the workpiece was given up and the transmisison of sound was carried out by a fluid intermediate medium. It will be explained later how the normally poor sound transmission was improved as a result of the great difference of wave resistances. With good moistening of the solid object by the fluid, and this is possible, an unobjectionable and reproduceable transmission of sound can always be accomplished. An additional advantage is that it is possible to draw the transmitter continuously over the object tested and tested out in lines rather rapidly" (1232a-1233a).

Gotz then went on to describe an arrangement with the

sound transmitter and workpiece immersed in a tank of water.

It is thus shown that the public had clear teachings of immersion testing in a number of prior art references, the latest having been published more than 18 months prior to the filing date of Patent No. 3.

Nevertheless, the decision of the Court of Appeals holds the No. 3 Patent valid and infringed without reference to any of such prior disclosures, on the basis of an "interposed member" in *contact* with both the part and the crystal, and on the basis of alleged results set forth in an application for reconsideration filed in the Patent Office, which did not cite or consider the prior art references cited above.

The effect of this decision is to enjoin Petitioners from making, using or selling the Immerscope, the only equipment on the market suitable for testing aircraft forgings for defects on a production line basis.

We submit that the decision is clearly erroneous and constitutes a grave injustice. If the claims are construed so broadly as to read on the Immerscope, they are clearly invalid for lack of invention over, or anticipation by, the prior art disclosures of immersion testing, or as directed merely to a desired result or function. If the claims are construed as limited to the "interposed member" which formed the basis of the finding of invention, they are clearly not infringed. A device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art. *Duff* v. *Sterling Pump Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 150 U. S. 221, 229 (1893); *Miller* v. *Eagle Mfg. Co.*, 151 U. S. 186, 208 (1894); *Pennington Engineering Co.* v. *Spicer Mfg. Corp.*, 165 F. 2d 59, 64 (C. A. 6, 1947); *Corning Glass Works* v. *Federal Glass Co.*, 239 F. 2d 674, 675 (C. A. 6, 1956).

REASONS FOR GRANTING THE WRIT.

We submit that the record fully establishes the following two grounds for issuance of the Writ of Certiorari:

(1) THE PUBLIC SAFETY IS VITALLY AFFECTED BY THE OUTCOME OF THIS CASE.

If the decision of the Court of Appeals were upheld, Petitioners would be enjoined from making, selling or using immersion equipment until April 12, 1966, the expiration date of the No. 3 Patent in suit, and Respondents could proceed against any other who might make, sell or use such equipment. The record establishes, however, that Respondents' immersion equipment, the UW Reflectoscope, was not marketed until 1955 despite the request of aircraft manufacturers for such equipment as early as 1951 (447a-448a, 498a-499a, 600a-604a, 627a, 731a). There is uncontroverted testimony that the UW Reflectoscope is a complex bulky instrument suitable for laboratory use and large installations (452a-453a, 606a-607a, 246b), but not suitable for production line testing (499a-500a, 513a). Immersion testing is uniquely suitable for testing irregularly shaped parts, such as aircraft forgings (460a, 467a-468a). Hitt of Douglas Aircraft testified "It is the only way we know of doing it: is by immersed testing." (456a). The outcome of this case thus affects the availability of equipment for the testing of aircraft parts for defects, and directly affects public safety.

(2) THE COURT OF APPEALS HAS DECIDED FEDERAL QUESTIONS IN DIRECT CONFLICT WITH DECISIONS OF THIS COURT, GREATLY EXTENDING THE SCOPE OF MONOPOLY OBTAINABLE THROUGH PATENTS, AND THE SCOPE OF PERMISSIBLE ACTIVITIES OF PATENT OWNERS IN LIMITING COMPETITION.

The decision of the Court of Appeals is in direct conflict with decisions of this Court, as well as its own decision, a decision of the First Circuit Court of Appeals and those of the Court of Customs and Patent Appeals, in holding claims valid under Title 35, Section 112, where they define nothing new except in terms of functions and desired results. The effect of this holding is to permit a patentee to obtain an extremely broad monopoly covering all devices which produce desired results, regardless of the structure actually used to produce such results. Such a monopoly stifles the development and use of independent inventions and defeats the Constitutional purpose of the patent system—"To promote the Progress of Science and useful Arts".

The decision is particularly unjust and inequitable in that the only possible basis for a finding of invention is in the use of certain features (the contact method of the No. 1 Patent, and the "interposed member" in contact with the crystal and part in the No. 3 Patent), and in a finding of infringement by the Immerscope which does not have such features but which follows the prior art. In this regard, the decision also directly conflicts with decisions of this Court.

The decision further conflicts with decisions of this Court in permitting a patent holder to impose harsh and unreasonable conditions upon the grant of a license, without reference to the practical effect of such conditions, the surrounding circumstances, and the extension of monopoly obtained by the patent holder.

The overall effect of the decision is to greatly enlarge the monopoly which lawfully can be obtained and extended through patents, in a field which is small but extremely important in industry and in connection with public safety.

CONCLUSION.

The Petition should be granted—

(1) to correct the clear errors of law of the decisions below which would unduly expand the scope of monopoly obtainable through patents and the scope of permissible activity of patent owners in limiting competition;

(2) to provide free competition in the manufacture and sale of immersion equipment which follows the prior art and which is of vital importance to industry and to public safety; and

(3) to prevent enforcement of patents misused in violation of the antitrust laws.

Respectfully submitted,

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APPENDIX.

DEFENDANTS-APPELLANTS' PETITION FOR REHEARING.

Now come defendants-appellants and respectfully petition this Court for a rehearing and reconsideration of its decision of November 22, 1960 insofar as that decision affirms the judgment of the District Court in reference to the No. 3 patent in suit — the Firestone Patent No. 2,467,301 (Px. 3; 865a).

This petition is grounded on the fact that the holding of *infringement* of said No. 3 patent by defendants' accused Immerscope has the direct effect of improperly prolonging the monopoly of the now expired No. 1 Firestone Patent No. 2,280,226 (Px. 1; 847a) for a period of six years in the important field of immersed inspection, a technique known to and practiced in the ultrasonic art long prior to the invention of said No. 1 patent.

This Court in its decision recognized that the No. 1 patent (which *issued* more than three years prior to the filing of the application for the No. 3 patent) was prior art as to the No. 3 patent and in such respect stated as follows at page 14 of its Opinion dated November 22, 1960:

> "The principal distinguishing feature between patents No. 3 and No. 1 is that a piece of metal of undisclosed size and shape, or a tank of undisclosed size containing a liquid of undisclosed content is placed between the crystal and the workpiece in patent No. 3. The same combination of elements as is used in patent No. 1 is used in this patent with the addition

> of the interposed member. It operates by the same fundamental principle. It produces a refinement of the same result. The question then arises as to whether or not this is invention. Would the adding of this element between the crystal and the workpiece be obvious to one ordinarly skilled in the art?"

The Court then found that "the adding of this element between the crystal and the workpiece" did amount to invention and concluded (Opinion, p. 15) "that all claims of patent No. 3 are valid."

Assuming *arguendo* that this conclusion is correct, we respectfully submit that a finding of infringement based upon the immersion of the workpiece and the crystal in a tank of water in exact accordance with ultrasonic practices long prior to Firestone results in a grave injustice not only to defendants but to the general public. Specific reasons in support of this position follow.

First of all, as recognized by the Court, *Firestone does not disclose immersion* at all. The element which he *added* to the old combination of the No. 1 patent was an "interposed member" consisting of a "piece of metal" or a tank containing a "liquid of undisclosed content" (Opinion, p. 14). As shown in the No. 3 patent, the workpiece is *not immersed* but the tank 30 is merely "held against the solid 10 (the workpiece) by means of such as gasket 32 to prevent leakage" (Fig. 5; 865a; Col. 4, lines 16 to 31; 867a). We submit that the claims of the No. 3 patent were allowed on the basis of these *interposed members* and not on the basis of *immersion* which was then old and well known in the art of ultrasonics.

For example, the Langevin et al. Patent No. 1,858,931 of May 17, 1932 (955a to 963a) discloses echo type ultrasonic apparatus wherein the crystals 11-11' (955a; Fig. 1) are submerged and where the disclosed apparatus is used for various purposes (963a; Col. 6, lines 46 to 62) includ-

ing the "exploitation of the bottom in view of submarine work" (here the bottom of the ocean or the submarine detected is the submerged "workpiece") and the "Determination of the distance of submarine obstacles in general."

In October 1943, nearly three years prior to the filing of the application for the No. 3 patent, the desirability and technique of immersed inspection was disclosed in detail in "Akustiche Zeitschrift" (1229a to 1236a) where we find a discussion of the difficulties encountered in contact inspection (1231a to 1232a) and a direction that the parts to be ultrasonically tested be placed in "a container for fluid which is carrying water * * *" and which also states that the oscillations required "can be produced in water only with quartz" (1233a). This article also (1236a) refers to "measurements made on iron sheets of different thickness in water."

By 1935 a detailed discussion of a large number of immersed ultrasonic tests was published in "Die Natur Wissenschaften" (1183a to 1198a). Here is disclosed echo sounding "to examine schools of fish" (1183a) (the immersed workpiece) or to determine the depth and characteristics of the ocean bottom (1185a) — again the workpiece under ultrasonic examination.

Sokolov in 1935 shows that one could transmit waves into a metal part either by placing the crystal in effective engagement with the part (1199a to 1201a; 1218a) or by immersing both the crystal and the part in a tank of liquid (1214a; 1215a; 1220a). Sokolov set forth the advantage of immersion testing of rough surfaced forgings. Sokolov elsewhere taught the advantage of rapid scanning (Bergman book, Dv. F, 1004a). Sokolov also expressly suggested the use of the pulse echo method in testing metal parts (1202a).

It thus becomes apparent that holding the claims of the No. 3 patent infringed by the *immersed* inspection of defendants' Immerscope amounts to a holding that "although the public, including defendants, is free to make, use and sell the structure of the expired No. 1 patent,[1] it cannot *use* that structure in immersed inspection as fully taught by the prior art long prior to Firestone."

The injustice of such a holding is obvious. Defendants do not "add an element" (Opinion, p. 14) to the old combination of the No. 1 patent. They merely *immerse* the crystal and workpiece in water exactly as taught in the ultrasonic art since as early as 1932.

The holding of validity of the claims of the No. 3 patent finds support only if those claims are construed to mean what they plainly specify, an additional element consisting of "means interposed between said transmitting means and said * * *". Certainly the Examiner in allowing those claims did not intend that they include the *immersion* technique, old and well known in the prior art pertaining to ultrasonic testing and measurement and where the crystal and the workpiece are both placed in a body of water. The No. 3 patent neither shows nor suggests such

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1. The Supreme Court in *Scott Paper Co.* v. *Marcalus Manufacturing Co., Inc., et al.*, 326 U. S. 249; 256-7, stated as follows as to the status of an expired patent:

> "It is thus apparent that the patent laws preclude the patentee of an expired patent and all others including petitioner from recapturing any part of the former patent monopoly; for those laws dedicate to all the public the ideas and inventions embodied in an expired patent. They do not contemplate that anyone by contract or any form of private arrangement may withhold from the public the use of an invention for which the public has paid by its grant of a monopoly and which has been appropriated to the use of all. The rights in the invention are then no longer subject to private barter, sale, or waiver. Cf. *Phillips Co.* v. *Grand Trunk R. Co.*, 236 U. S. 662; *Midstate Horticultural Co.* v. *Pennsylvania R. Co.*, 320 U. S. 356, 361; *Brooklyn Bank* v. *O'Neil*, 324 U. S. 697, 704. * * *"

an arrangement. To interpret the claims as infringed requires a finding that it involves invention to immerse the crystal and workpiece of the prior art No. 1 patent in the same manner and for the same purpose that the crystals and workpieces were immersed in ultrasonic testing apparatus of the prior art. This is not invention.

Incidentally, the No. 3 patent fails completely to disclose apparatus capable of achieving one of the principal advantages of *immersed* inspection — the ability to inspect irregularly shaped parts on a production line basis (446a). This, as taught by the prior art, is readily accomplished by the *immersion* technique — but could not be even approximated by moving the "interposed means", 16-16' and 30 (865a) of the Firestone apparatus from place to place along the workpiece 10.

We further respectfully suggest that the Opinion of this Court is based upon reasoning that precludes a holding of *both validity* of the No. 3 patent *and infringement* thereof by defendants' Immerscope and the immersion technique by which that instrument is largely used.* In approving the findings and conclusions of the District Court as to patent No. 1 this Court (Opinion, p. 20) found in effect that "the thin film of oil or wax between his crystal and workpiece" as used by Firestone was the equivalent of the "sound conducting liquid, usually water" used with the Immerscope. Now by finding *infringement* of the No. 3 patent the judgment here affirmed will prevent the public from using the structure of the expired No. 1 patent in a manner found equivalent to that patent in finding infringement of said No. 1 patent by defendants'

* The stipulation (16a to 49a) refers only to the principal and intended use of the Immerscope which is immersed inspection and this petition is particularly directed to such use. The use of "putting a stream of water between them" is not even mentioned in the stipulated Immerscope manual and is apparently a special use incidentally referred to at 167b and 254b.

Immerscope. As we have pointed out previously, the immersion technique was old in the ultrasonic inspection art long prior to Firestone. Here it would seem that we have an apt illustration of the controlling principle of patent law of "that which infringes, if later, anticipates if earlier."

Peters v. *Active Mfg. Co.*, 129 U. S. 530; 537.
Ide v. *Ball Engine Co.*, 149 U. S. 550; 556.
Knabb v. *Morss*, 150 U. S. 221; 228.
Miller v. *Eagle*, 150 U. S. 186; 203.
Perfect Circle Co. v. *Hastings Mfg. Co.*, 88 F. 2d 813; 816 (C. A. 6, 1937).

It thus follows that if the Immerscope (later than the No. 1 patent) infringes the No. 1 patent *on the basis noted*, then the No. 1 patent which is prior art as to the No. 3 patent must anticipate the No. 3 patent *if that patent is to be construed to likewise be infringed by the Immerscope.*

Where, as here, a patent is held valid over the prior art, that same prior art must be considered in determining the question of *infringement*. *Holley* v. *Goldner Sales Co.*, 107 F. 2d 494; 497 (C. A. 6, 1939). As in the *Holley* case, the immersed inspection used by defendants "was known in the prior art". The holding of validity here must, in the light of the prior art, be limited to the special "interposed means" disclosed in the No. 3 patent. As so limited, that patent is not infringed by defendants' Immerscope as used in *immersed inspection* in accordance with the prior art. See also *The Cincinnati Milling Machine Co.* v. *Turchan*, 208 F. 2d 222; 228 (C. A. 6, 1953); *Kalle & Co.* v. *The Multazo Company, Inc.*, 109 F. 2d 321; 327 (C. A. 6, 1940).

This case provides a striking example of the necessity of considering the questions of validity *and* infringement

as *related* problems. This was not done by the District Court. That Court first held the claims of the No. 3 patent *valid* on the basis of the "interposed members". Then in finding *infringement* by the immersion technique, it applied the doctrine of equivalents and erroneously disregarded the admonition of the Supreme Court in *Graver Tank & Mfg. Co., Inc., et al. v. Linde Air Products Co.*, 304 U. S. 605, where Mr. Justice Jackson, in discussing the doctrine of equivalents, stated as follows at pages 608 and 609:

> "• • • The wholesome realism of this doctrine is not always applied in favor of a patentee but is sometimes used against him. Thus, where a device is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way, but nevertheless falls within the literal words of the claim, the doctrine of equivalents may be used to restrict the claim and defeat the patentee's action for infringement. *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 568. • • •"

Here we have a parallel situation. Regardless of response to the literal words of the claims, defendants' Immerscope, in its immersed inspection operation, follows the prior art. Since the *apparatus* is now free of injunction by the expiration of the No. 1 patent (which this Court has held provides "the same combination of elements" operating by the "same fundamental principle" as the No. 3 patent (Opinion, p. 14)), enjoining the *use* of such apparatus in accordance with the prior art would result in a grave injustice to defendants and the public generally.

For reasons stated herein, we respectfully request a rehearing as to Patent No. 3 to the end that the Opinion of this Court dated November 22, 1960 may be modified to include a finding that on the basis on which the claims

of the No. 3 patent were held valid, there is no infringement of those claims by defendants' Immerscope as used in accordance with the immersion procedure of the prior art.

Respectfuly submitted,

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ORDER DENYING DEFENDANTS-APPELLANTS PETITION FOR REHEARING.

Before: MILLER, *Chief Judge*, MCALLISTER and CECIL, *Circuit Judges.*

Defendants-Appellants filed a petition for rehearing of the decision of this Court insofar as it affirmed the judgment of the District Court as to patent in suit No. 2467301, sometimes referred to as patent No. 3. The principal question raised involves the infringement of that patent.

This Court found that patent No. 3 was valid and infringed. (Opinion reported at 285 F. 2d 911, 929, 923.)

The questions of validity and infringement of this patent having been fully considered and discussed in the opinion of the trial judge, 171 F. Supp. 901, 920, 923, and in the opinion of this Court, *supra*, the petition for rehearing of the defendants-appellants is hereby denied.

LESTER L. CECIL,
Circuit Judge.

STATUTES.

15 U. S. C. Section 2.

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding fifty thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

15 U. S. C. Section 15.

Any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.

15 U. S. C. Section 26.

Any person, firm, corporation, or association shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws, including sections 13, 14, 18, and 19 of this title, when and under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity, under the rules governing such proceedings, and upon the execution of proper bond against damages for an injunction im-

providently granted and a showing that the danger of irreparable loss or damage is immediate, a preliminary injunction may issue: *Provided*, That nothing contained in sections 12, 13, 14-21, 22-27 of this title shall be construed to entitle any person, firm, corporation, or association, except the United States, to bring suit in equity for injunctive relief against any common carrier subject to the provisions of chapters 1 and 8 of Title 49, in respect of any matter subject to the regulation, supervision, or other jurisdiction of the Interstate Commerce Commission.

35 U. S. C. Section 101.

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U. S. C. Section 102 (a) and (b).

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

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35 U. S. C. Section 103.

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject mat-

ter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35 U. S. C. Section 112.

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U. S. C. Section 154.

Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, for the term of seventeen years, of the right to exclude others from making, using, or selling the invention throughout the United States, referring to the specification for the particulars thereof. A copy of the specification and drawings shall be annexed to the patent and be a part thereof.